



	INVEST in the power of the written word	EXPERIENCE a range of cultures, histories and beliefs	EXPLORE the shared values of civilisation	SHAPE society and our place within it	GROW as instinctive readers, writers and orators	PURSUE English beyond the classroom
	Curriculum Sequencing Grid					
Subject	Computer Studies			Year	9	
	Term 1		Term 2		Term 3	
	HT1	HT2	HT3	HT4	HT5	HT6
Component	1. Spreadsheet Quiz 2. IDEA	3. Bebras UK 4. Binary	5. User Interfaces	6. Python	7. Marketing Mix	8. Workplace Digital Literacy
Developing Cultural Capital	By introducing them to practical spreadsheet skills that are widely used in academic, professional, and personal contexts. By learning to utilize tools like conditional formatting, data validation, and logical functions, students develop critical problem-solving skills and an understanding of how technology is used to manage and analyze data effectively. Through tasks such as creating self-marking quizzes and automating processes with macros, pupils gain hands-on experience in improving efficiency and accuracy in data handling. This not only prepares them for future studies and careers in fields such as finance, data analysis, and administration but also empowers them to approach real-world challenges with confidence. Additionally, exploring templates and visual formatting emphasizes the importance of clear communication, helping pupils present data in ways that are both professional and accessible.	By providing a foundational understanding of how computers process and store data, bridging the gap between theoretical mathematics and practical computing. Learning binary and hexadecimal systems gives students insight into the language of computers, empowering them to understand and engage with the technology shaping modern society. Through activities like binary addition, shifts, and conversions, pupils develop critical thinking and problem-solving skills that are transferable across multiple disciplines. Additionally, by exploring how digital devices represent data using bits, bytes, and nibbles, students gain a deeper appreciation for the engineering and innovation that underpin the digital world. These lessons not only prepare students for potential careers in technology and programming but also help them recognize the pervasive role of binary systems in everyday life, from smartphones to video games.	By exposing them to the principles of user interface design and its applications in technology and creative industries. By understanding the differences between CLI, GUI, and NLI, pupils gain insight into how user-friendly technologies are developed to cater to diverse audiences. Exploring tools like mood boards and templates equips students with planning and design strategies applicable to fields such as graphic design, marketing, and project management. Additionally, the lessons emphasize the importance of accessibility and intuitive design in creating interfaces that serve all users effectively. Through activities like developing navigation bars, setting success criteria, and crafting splash screens, pupils gain practical skills in creating technology solutions that combine creativity with functionality. These lessons connect students to real-world applications of technology, inspiring them to consider careers in user experience (UX) design, product development, and digital innovation.	By introducing them to foundational concepts in Python programming and Turtle Graphics, which bridge the gap between logic, mathematics, and creativity. By learning to decompose problems, utilize loops, and create complex shapes, students gain critical problem-solving skills that are applicable to a wide range of careers, including software development, engineering, and digital art. The hands-on experience with Turtle Graphics allows pupils to see the tangible results of their code, fostering an understanding of how programming is used to create designs, animations, and visual solutions in real-world industries. These lessons also promote computational thinking by emphasizing code efficiency and iterative problem-solving. This empowers students to see themselves as innovators in a digital age, capable of combining creativity and technology to produce functional and visually appealing outcomes.	By providing them with a comprehensive understanding of marketing and business concepts that are highly relevant in today's consumer-driven economy. By exploring strategies like psychological pricing and ecommerce, pupils gain insight into the techniques businesses use to attract and retain customers. The lessons also introduce foundational concepts such as the marketing mix and promotional techniques, giving pupils a strong grounding in principles that are directly transferable to real-world business scenarios. Hands-on activities, such as creating mood boards and website mockups, encourage creativity and strategic thinking while demonstrating the role of technology in modern business. Furthermore, the inclusion of pricing strategies like penetration pricing and price skimming exposes pupils to the complexities of competitive marketplaces. These lessons not only prepare students for future studies and careers in business, marketing, and entrepreneurship but also empower them to be informed consumers and contributors in a global economy.	By providing the students a look into the employability skills that relate to Computing and most jobs that have digital skills. Students will be introduced to an intray task for a company that will be familiar to their locality. They will apply learning from the past three years to create a series of products that are suitable for customers based on the needs of the clients brief.
Substantive Knowledge/ Disciplinary Knowledge	Substantive Knowledge: > Understanding the purpose of spreadsheets as tools for storing, managing, and analyzing data > Definitions of conditional formatting, COUNTIF, and IF statements and their roles in data visualization and logical operations > Features of data validation, including drop-down lists to control and restrict cell input > Explanation of formatting tools like fill colors and merging cells to enhance the readability and layout of spreadsheets > The concept of a self-marking quiz, which uses logical functions to automate score calculation > The role of macros in automating repetitive tasks to increase efficiency in spreadsheet use Disciplinary Knowledge: > Understanding percentage calculations and their applications in presenting data such as scores > The purpose and use of templates to maintain consistency and save time in spreadsheet creation > Applying conditional formatting to highlight data based on specific criteria, such as color coding correct and incorrect answers > Using COUNTIF and IF statements to create dynamic formulas for automating tasks like grading or categorizing data > Setting up data validation to ensure only valid inputs are entered into cells, improving data accuracy > Designing self-marking quizzes by combining logical functions and formatting tools > Recording and using macros to automate repetitive actions in spreadsheet workflows > Creating visually appealing spreadsheets by utilizing features like fill colors, merging cells, and templates for professional presentations	Substantive Knowledge: > Understanding number systems: Base 2 (Binary), Base 10 (Denary), and Base 16 (Hexadecimal), and their roles in computing and everyday use > The definitions of bit and byte, and their significance as the fundamental units of data in computing > The concept of a nibble as half a byte (4 bits) and its use in digital data representation > Key operations in binary arithmetic, such as binary addition and binary shifts, for manipulating binary numbers > Explanation of unique values in binary and how 8 bits can represent 256 distinct values (2⁸=256) > The processes of denary to binary conversion and hexadecimal to binary conversion, essential for understanding data representation in computing Disciplinary Knowledge: > Performing binary addition, including handling carry-over for sums greater than 1 > Applying binary shifts to multiply or divide binary numbers efficiently > Converting between denary, binary, and hexadecimal to understand and manipulate different number systems > Understanding how data storage and processing use binary systems at the hardware level, such as representing text or images using bits and bytes > Calculating and verifying unique values within binary representations to ensure data accuracy	Substantive Knowledge: > Definitions of Command Line Interface (CLI) and Graphical User Interface (GUI), highlighting their differences in functionality and user experience > The purpose of a User Interface (UI) as a medium for interaction between users and systems, including its visual and functional elements > The role of a Natural Language Interface (NLI), enabling interaction through spoken or written language using voice recognition technology > Explanation of mood boards as tools for collecting visual inspiration and planning design projects > The function of navigation bars in providing intuitive access to different sections of an interface > Features like Slide Master and templates in PowerPoint for creating consistent designs across multiple slides > The concept of a splash screen, used as the introductory visual of an application to engage users Disciplinary Knowledge: > Creating and maintaining consistency across presentations by utilizing Slide Master and templates in PowerPoint > Designing intuitive and user-friendly UIs that balance functionality and visual appeal > Developing navigation bars that ensure accessibility and enhance user experience across an interface > Using mood boards to visually plan and align the creative direction of a project > Evaluating projects using success criteria to determine whether objectives have been met > Incorporating splash screens to create a strong first impression and establish the tone of an application or project > Practicing the use of natural language interfaces to understand how AI-powered technologies, like voice recognition, interact with users	Substantive Knowledge: > Definitions of key programming concepts such as decomposition, iteration, and efficiency in coding > Explanation of linear programming as a sequential execution of code instructions > Introduction to Turtle Graphics, a Python library for creating drawings and graphics, and its fundamental commands like PenUp() and PenDown() > Characteristics of geometric shapes like regular polygons and complex shapes and their representation in Turtle Graphics > The use of count-controlled loops for repeating a block of code a specific number of times > Commands for filling shapes in Turtle Graphics, such as begin, fill, and end_fill, to add colour to drawn figures Disciplinary Knowledge: > Applying decomposition to break down complex programming problems into smaller, manageable parts for efficient solutions > Using count-controlled loops to draw repetitive patterns or geometric shapes in Turtle Graphics > Combining PenUp() and PenDown() commands to create precise graphics without leaving unwanted marks on the screen > Developing regular polygons and complex shapes by combining loops, iterations, and basic geometry principles > Writing efficient Python code that minimizes resource use while achieving desired outputs, such as drawing intricate patterns > Incorporating fill commands to enhance visual appeal by adding colour to drawn shapes	Substantive Knowledge: > Definitions of marketing strategies such as BCGOF, penetration pricing, and price skimming, and their roles in influencing customer behaviour > The Four Ps of the marketing mix (Product, Price, Place, Promotion) and how they contribute to effective marketing > Explanation of ecommerce as the buying and selling of goods and services online, offering global reach and 24/7 availability > The purpose of a promotional mix, combining techniques like advertising, PR, and personal selling > Understanding psychological pricing and its impact on consumer perception (e.g., 49.99 instead of £10) Disciplinary Knowledge: > Factors such as proximity factors that influence the choice of business location, including market accessibility and competition > Applying the Four Ps to analyse and improve marketing strategies for specific products or services > Designing mood boards to develop ideas for branding and promotional materials > Evaluating pricing strategies such as penetration pricing and price skimming to determine the best approach for different markets > Combining promotional techniques in a promotional mix to create effective marketing campaigns > Creating and presenting website mockups to plan layouts and user journeys in online retail platforms > Assessing proximity factors to make informed decisions about business location and market access > Identifying and practicing personal selling techniques to effectively engage	Substantive Knowledge: > Explaining what a client brief is > Explaining how projects are managed in a workplace Disciplinary Knowledge: > Understanding client briefs > Creation of a Digital media graphic that relates to the client brief > Creation of a spreadsheet to track data for the company > Creation of a Automated letter using mail merge
Cross Curricular Links	ICT	Maths Computer Science	Maths Computer Science	Business	ICT	ICT Computer Science Business Digital Media
Vocabulary	Topic 1 Glossary Topic 2 Glossary	Topic 3 Glossary Topic 4 Glossary	Topic 5 Glossary	Topic 6 Glossary	Topic 7 Glossary	Topic 8 Glossary
Assessments	Topic 1 SPA	Topic 4 SPA Bebras Online Test	Topic 5 SPA	Topic 5 SPA	Topic 6 SPA	Topic 7 SPA IDEA Award - Bronze and Silver